



O.W.L. Foundation

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1/28/09

Catherine Kuhlman: Executive Officer
North Coast Regional Water Quality Control Board
5550 Skylane Blvd. Ste. A
Santa Rosa, CA 95403

RE: WATER QUALITY CONTROL PLAN FOR THE NORTH COAST REGION TO
ESTABLISH EXCEPTION CRITERIA TO THE POINT SOURCE WASTE DISCHARGE
PROHIBITIONS BY REVISING THE ACTION PLAN FOR STORM WATER DISCHARGES
AND ADDING A NEW ACTION PLAN FOR LOW THREAT DISCHARGES.

Dear Ms. Kuhlman:

The O.W.L. Foundation is committed to issues concerning open space, water resource protection and land use, hence the acronym "O.W.L." As such, we were drawn to your suggested amendment—the full title of which appears in the subject line of this letter ("the document")—as the document proposes several criteria that would dramatically affect the safety and well being of our waterways, wetlands and potential groundwater recharge lands.

The proposed amendment describes three different types of urban runoff that empty into the Russian River and/or tributaries to that waterway. We applaud your efforts to reduce pollution laden storm water runoff into streams during winter rain events. Storm water runoff is a major contributor to riverine contamination and lessening the effects is good news.

A second proposal concerning planned releases assumes that resultant discharges would represent a "low threat" to water environments. For example, groundwater well tests, construction de-watering and other point source discharges. So long as these types of discharges fully comply with NPDES permit regulations and are accompanied by vigilant monitoring, we do not anticipate significant problems.

However, the O.W.L. Foundation is deeply concerned with the third proposal in this document. Apparently, the document would allow unplanned runoff, arbitrarily deemed “incidental” and “low threat” that contain wastewater. Any discharge of wastewater is, by definition, not a “low threat” event but rather one of demonstrably grave consequences.

Treated wastewater, “recycled” water or “reclaimed” water, contain potentially harmful contaminants. This material is more accurately known as partially treated sewage because of the impressive number of known and suspected pollutants contained in it. Sewage treatment plants that employ modern cleaning technologies, e.g. reverse osmosis, micro and nano filtration, prolonged UV exposure etc., can remove most pollutants from water, some plants even remove volatiles. But the overwhelming bulk of effluent considered by the document to be “incidental” runoff would supply an unfair burden of dangerous contaminants to the Russian River and/or its tributaries.

For example, treated wastewater contains phthalates, a family of chemicals that mimic estrogen, the female hormone. Very few sewage treatment plants are even designed to remove phthalates. Hormones, and the chemicals that mimic them, are biologically active in parts per billion. Indeed, the endocrine system is arguably the most powerful in the entire body. Hormones also react with other chemicals and can potentiate biochemical activity.

Wastewater contains pharmaceuticals. Given the ageing population of Sonoma County and the availability of medical care, the pharmaceutical load in wastewater must be considered to be substantial. Worse, it is well known that the most commonly consumed pharmaceutical, Acetaminophen, can transform during chlorination to produce two completely new toxicants neither of which was introduced to the waste stream.¹ Obviously, it would be naive not to assume that other chemicals are finding unpredictable reactive opportunities in the chemical broth emanating from sewage plants. The problem is that no one has any idea what those new chemicals are let alone what their properties and effects might be.

Numerous studies² around the world and in this country have shown surprisingly high loads of chemicals in so-called treated wastewater. We simply cannot consider this material to be a “low threat” to a fresh water supply like the Russian River or its tributaries. We are concerned that permitting “incidental” or even “accidental” run off of material with such a dramatic potential for harm to public health would invite wide spread abuse. Dumping sewage treated or untreated could conceivably fall under this rubric when under a responsible regulatory climate the very same activity would be deemed illegal and trigger penalties. As it reads now, the document would open a metaphorical door to directly pollute our fresh water resources; we find this omission wholly unacceptable.

¹ American Chemical Society, Transformation of Acetaminophen by Chlorination Produces the Toxicants 1,4-Benzoquinone and N-Acetyl-pbenzoquinone Imine Mary Bedner and William A. MacCrehan Analytical Chemistry Division, National Institute of Standards and Technology, Mailstop 8392, Gaithersburg, Maryland 20899-8392 Received for review May 12, 2005

² Please see attached disk with readers compiled by the O.W.L. Foundation concerning various studies and reports.

The O.W.L. Foundation believes, and you may very well agree with us here, that there is a sufficient body of peer reviewed, scientific evidence to warrant increased testing for hormones, hormone mimicking chemicals, endocrine disruptors and other exceptionally potent biological agents, like phthalates, in wastewater. Further, these agents, once identified should be removed.

We are also concerned that DNA coded for antibiotic resistance has been found in wastewater effluent and in fresh water streams³. There is little question now that inadequate sewage treatment has played a role in weakening the efficacy of antibiotic drugs. The alarming rise of multi-drug resistant (“MDR”) MRSA, *Clostridium difficile* and MDR Salmonella are now considered to be exacerbated by MDR genetic material contained in wastewater.

We urge you to, at the very least, set aside the portion of the document that treats “incidental” runoff. No one, including the Board, would want to knowingly provide a loophole through which dangerous levels of pollution could contaminate our waterways.

Sincerely,

A handwritten signature in black ink, appearing to read 'H.R. Downs', with a stylized, flowing script.

H.R. Downs

President

³ Antibiotic Resistance Genes as Emerging Contaminants: Studies in Northern Colorado, AMY PRUDEN, RUOTING PEI, HEATHER STORTEBOOM, AND KENNETH H. CARLSON Department of Civil and Environmental Engineering, Colorado State University, Fort Collins, Colorado 80523